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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/671,832  | 09/29/2003  | Atsushi Murakami     | 117250              | 3516             |
| 25944   | 7590        | 08/10/2005           | EXAMINER            |                  |
| OLIFF & BERRIDGE, PLC<br>P.O. BOX 19928<br>ALEXANDRIA, VA 22320 |             |                      | HUFFMAN, JULIAN D   |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2853                |                  |

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                   |                 |  |
|------------------------------|-------------------|-----------------|--|
| <b>Office Action Summary</b> | Application No.   | Applicant(s)    |  |
|                              | 10/671,832        | MURAKAMI ET AL. |  |
|                              | Examiner          | Art Unit        |  |
|                              | Julian D. Huffman | 2853            |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,8 and 9 is/are rejected.
- 7) ☒ Claim(s) 3,6,7 and 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/29/03</u> . | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, 4, 5, 8 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Pan et al. (U.S. 6,866,359 B2).

Pan et al. discloses:

With regards to claim 1, an electronic device including a controlled part (fig. 4, element 44), comprising:

a first housing (fig. 4, element 44) that includes the controlled part (fig. 3, element 100, fig. 1, element 70, 72) and a non-volatile first storage medium (element 78), the first storage medium stores control information regarding the controlled part (column 6, lines 35-67, the memory stores the characteristics of the piezoelectric element, which is the controlled part); and

a controller that is detachable from the first housing (fig. 1, the processor 52 is provided on the printer in a second housing, which is detachable from the first housing of the cartridge), reads the control information from the first storage medium when attached to the first housing and controls the controlled part based on the read control information (the processor reads the memory and controls the piezoelectric ejectors of the cartridge based on the control information, column 6, lines 35-39).

With regards to claim 2, the first housing includes a mechanical module (piezoelectric actuators are mechanical modules which deform to eject ink in response to a driving signal, column 1, lines 57-60) and a drive source (fig. 1, element 70, column 4, lines 30-33) that provides a drive force to the mechanical module (the driver provides an electromotive drive force in the form of electrical signals which cause the module to perform ejection of ink).

With regards to claim 4, a second housing (printer housing) that is detachable from the first housing (the cartridge of the first housing is detachable from the second printer housing) and makes up a contour of the electrical device in connection with the first housing (the first and second housings together form the electronic device or printer), wherein the first housing includes a first connector connected to the controlled part (the cartridge includes a connector which connects to the controlled part, as shown in fig. 1, arrow between processor 52 and print logic 70, further, fig. 4 and column 9, lines 8-22 describe connections between the cartridge of the first housing and the printer of the second housing), the second housing includes the controller (fig. 1, controller 52 is on the second/printer housing) and a second connector connected to the

controller (the printer housing has a connector which connects to the controller, as described on column 9, lines 8-22), and the first connector and the second connector are connected when the second housing is attached to the first housing (when the cartridge is connected to the printer, the connectors of the housings are connected).

With regards to claim 5, the second housing is attached to a bottom of the first housing (the bottom of the cartridge/first housing is attached to the second/printer housing, as seen in fig. 4).

With regards to claim 8, the first storage medium stores identification information of the controlled part and the first housing in association with each other (column 6, lines 35-67).

With regards to claim 9, the control information stored in the first storage medium is provided with different values according to operational positions of the mechanical module (electrical capacitance or resonance frequency of the piezoelectric elements is stored in the first storage medium, column 1, lines 56-column 2, line 8, the values being dependent upon the operational positions of the piezoelectric elements).

### ***Allowable Subject Matter***

3. Claims 3, 6, 7 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**Conclusion**

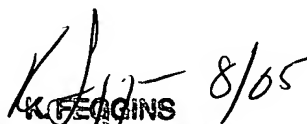
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian D. Huffman whose telephone number is (571) 272-2147. The examiner can normally be reached on 9:30a.m.-6:00p.m. Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Julian D. Huffman  
5 August 2005



K. E. EDDINS  
PRIMARY EXAMINER